

Representative Joel Ferry proposes the following substitute bill:

STATE CONSTRUCTION CODE AMENDMENTS

2022 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Joel Ferry

Senate Sponsor: Curtis S. Bramble

LONG TITLE

General Description:

This bill modifies Title 15A, State Construction and Fire Codes Act, and creates an exemption from licensure in the Professional Engineers and Professional Land Surveyors Licensing Act.

Highlighted Provisions:

This bill:

- ▶ amends provisions of Title 15A, State Construction and Fire Codes Act, by amending the:
 - Statewide Amendments to the International Residential Code;
 - Statewide Amendments to the International Plumbing Code;
 - Statewide Amendments to the International Mechanical Code; and
 - the State Fire Code;
- ▶ creates a licensing exemption for a person certified by the National Institute for Certification in Engineering Technologies at level III or IV in Water-Based System Layout or Fire Alarm Systems; and
- ▶ makes technical and conforming changes.

Money Appropriated in this Bill:

None



26 **Other Special Clauses:**

27 This bill provides a special effective date.

28 **Utah Code Sections Affected:**

29 AMENDS:

30 **15A-3-202**, as last amended by Laws of Utah 2021, Chapters 102 and 199

31 **15A-3-203**, as last amended by Laws of Utah 2019, Chapter 20

32 **15A-3-205**, as last amended by Laws of Utah 2019, Chapter 20

33 **15A-3-206**, as last amended by Laws of Utah 2021, Chapters 102 and 199

34 **15A-3-306**, as last amended by Laws of Utah 2019, Chapter 20

35 **15A-3-402**, as last amended by Laws of Utah 2020, Chapter 441

36 **15A-5-202**, as last amended by Laws of Utah 2019, Chapter 103

37 **15A-5-302**, as last amended by Laws of Utah 2019, Chapter 103

38 **58-22-305**, as last amended by Laws of Utah 2020, Chapter 339



40 *Be it enacted by the Legislature of the state of Utah:*

41 Section 1. Section **15A-3-202** is amended to read:

42 **15A-3-202. Amendments to Chapters 1 through 5 of IRC.**

43 (1) In IRC, Section R102, a new Section R102.7.2 is added as follows: "R102.7.2

44 Physical change for bedroom window egress. A structure whose egress window in an existing
45 bedroom is smaller than required by this code, and that complied with the construction code in
46 effect at the time that the bedroom was finished, is not required to undergo a physical change to
47 conform to this code if the change would compromise the structural integrity of the structure or
48 could not be completed in accordance with other applicable requirements of this code,
49 including setback and window well requirements."

50 (2) In IRC, Section R108.3, the following sentence is added at the end of the section:

51 "The building official shall not request proprietary information."

52 (3) In IRC, Section 109:

53 (a) A new IRC, Section 109.1.5, is added as follows: "R109.1.5 Weather-resistant
54 exterior wall envelope inspections. An inspection shall be made of the weather-resistant
55 exterior wall envelope as required by Section R703.1 and flashings as required by Section
56 R703.8 to prevent water from entering the weather-resistive barrier."

57 (b) The remaining sections are renumbered as follows: R109.1.6 Other inspections;
58 R109.1.6.1 Fire- and smoke-resistance-rated construction inspection; R109.1.6.2 Reinforced
59 masonry, insulating concrete form (ICF) and conventionally formed concrete wall inspection;
60 and R109.1.7 Final inspection.

61 (4) IRC, Section R114.1, is deleted and replaced with the following: "R114.1 Notice to
62 owner. Upon notice from the building official that work on any building or structure is being
63 prosecuted contrary to the provisions of this code or other pertinent laws or ordinances or in an
64 unsafe and dangerous manner, such work shall be immediately stopped. The stop work order
65 shall be in writing and shall be given to the owner of the property involved, or to the owner's
66 agent or to the person doing the work; and shall state the conditions under which work will be
67 permitted to resume."

68 (5) In IRC, Section R202, the following definition is added: "ACCESSORY
69 DWELLING UNIT: A habitable living unit created within the existing footprint of a primary
70 owner-occupied single-family dwelling."

71 (6) In IRC, Section R202, the following definition is added: "CERTIFIED
72 BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to
73 test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction
74 under Utah Code, Subsection [19-4-104\(4\)](#)."

75 (7) In IRC, Section R202, the definition of "Cross Connection" is deleted and replaced
76 with the following: "CROSS CONNECTION. Any physical connection or potential
77 connection or arrangement between two otherwise separate piping systems, one of which
78 contains potable water and the other either water of unknown or questionable safety or steam,
79 gas, or chemical, whereby there exists the possibility for flow from one system to the other,
80 with the direction of flow depending on the pressure differential between the two systems (see
81 "Backflow, Water Distribution")."

82 (8) In IRC, Section 202, the following definition is added: "ENERGY STORAGE
83 SYSTEM (ESS). One or more devices, assembled together, that are capable of storing energy
84 for supplying electrical energy at a future time."

85 (9) In IRC, Section 202, in the definition for gray water a comma is inserted after the
86 word "washers"; the word "and" is deleted; and the following is added to the end: "and clear
87 water wastes which have a pH of 6.0 to 9.0; are non-flammable; non-combustible; without

88 objectionable odors; non-highly pigmented; and will not interfere with the operation of the
 89 sewer treatment facility."

90 (10) In IRC, Section R202, the definition of "Potable Water" is deleted and replaced
 91 with the following: "POTABLE WATER. Water free from impurities present in amounts
 92 sufficient to cause disease or harmful physiological effects and conforming to the Utah Code,
 93 Title 19, Chapter 4, Safe Drinking Water Act, and Title 19, Chapter 5, Water Quality Act, and
 94 the regulations of the public health authority having jurisdiction."

95 (11) IRC, Figure R301.2(5), is deleted and replaced with R301.2(5) as follows:

96

"TABLE R301.2(5)			
GROUND SNOW LOADS FOR SELECTED LOCATIONS IN UTAH			
City/Town	County	Ground Snow Load (lb/ft ²)	Elevation (ft)
99 Beaver	Beaver	35	5886
100 Brigham City	Box Elder	42	4423
101 Castle Dale	Emery	32	5669
102 Coalville	Summit	57	5581
103 Duchesne	Duchesne	39	5508
104 Farmington	Davis	35	4318
105 Fillmore	Millard	30	5138
106 Heber City	Wasatch	60	5604
107 Junction	Piute	27	6030
108 Kanab	Kane	25	4964
109 Loa	Wayne	37	7060
110 Logan	Cache	43	4531
111 Manila	Daggett	26	6368
112 Manti	Sanpete	37	5620
113 Moab	Grand	21	4029
114 Monticello	San Juan	67	7064
115 Morgan	Morgan	52	5062
116 Nephi	Juab	39	5131

117	Ogden	Weber	37	4334
118	Panguitch	Garfield	41	6630
119	Parowan	Iron	32	6007
120	Price	Carbon	31	5558
121	Provo	Utah	31	4541
122	Randolph	Rich	50	6286
123	Richfield	Sevier	27	5338
124	St. George	Washington	21	2585
125	Salt Lake City	Salt Lake	28	4239
126	Tooele	Tooele	35	5029
127	Vernal	Uintah	39	5384

Note: To convert lb/ft² to kN/m², multiply by 0.0479. To convert feet to meters, multiply by 0.3048.

1. Statutory requirements of the Authority Having Jurisdiction are not included in this state ground snow load table.

128 2. For locations where there is substantial change in altitude over the city/town, the load applies at and below the cited elevation, with a tolerance of 100 ft (30 m).

3. For other locations in Utah, see Bean, B., Maguire, M., Sun, Y. (2018), "The Utah Snow Load Study," Utah State University Civil and Environmental Engineering Faculty Publications, Paper 3589, <http://utahsnowload.usu.edu/>, for ground snow load values.

129 (12) IRC, Section R301.6, is deleted and replaced with the following: "R301.6 Utah
 130 Snow Loads. The snow loads specified in Table R301.2(5b) shall be used for the jurisdictions
 131 identified in that table. Otherwise, for other locations in Utah, see Bean, B., Maguire, M., Sun,
 132 Y. (2018), "The Utah Snow Load Study," Utah State University Civil and Environmental
 133 Engineering Faculty Publications, Paper 3589, <http://utahsnowload.usu.edu/>, for ground snow
 134 load values."

135 (13) In IRC, Section R302.2, the following sentence is added after the second sentence:
 136 "When an access/maintenance agreement or easement is in place, plumbing, mechanical
 137 ducting, schedule 40 steel gas pipe, and electric service conductors including feeders, are
 138 permitted to penetrate the common wall at grade, above grade, or below grade."

139 (14) In IRC, Section R302.3, a new exception 3 is added as follows: "3. Accessory
140 dwelling units separated by walls or floor assemblies protected by not less than 1/2-inch (12.7
141 mm) gypsum board or equivalent on each side of the wall or bottom of the floor assembly are
142 exempt from the requirements of this section."

143 (15) In IRC, Section R302.5.1, the words "self-closing device" are deleted and replaced
144 with "self-latching hardware."

145 (16) IRC, Section R302.13, is deleted.

146 (17) In IRC, Section R303.4, the number "5" is changed to "3" in the first sentence.

147 (18) In IRC, Section R310.6, in the exception, the words "or accessory dwelling units"
148 are added after the words "sleeping rooms".

149 (19) IRC, Sections R311.7.4 through R311.7.5.3, are deleted and replaced with the
150 following: "R311.7.4 Stair treads and risers. R311.7.5.1 Riser height. The maximum riser
151 height shall be 8 inches (203 mm). The riser shall be measured vertically between leading
152 edges of the adjacent treads. The greatest riser height within any flight of stairs shall not
153 exceed the smallest by more than 3/8 inch (9.5 mm).

154 R311.7.5.2 Tread depth. The minimum tread depth shall be 9 inches (228 mm). The tread
155 depth shall be measured horizontally between the vertical planes of the foremost projection of
156 adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within
157 any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder
158 treads shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point
159 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a
160 minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the
161 greatest winder tread depth at the 12-inch (305 mm) walk line shall not exceed the smallest by
162 more than 3/8 inch (9.5 mm).

163 R311.7.5.3 Profile. The radius of curvature at the leading edge of the tread shall be no greater
164 than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4
165 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection
166 shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) between two
167 stories, including the nosing at the level of floors and landings. Beveling of nosing shall not
168 exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading
169 edge of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open

170 risers are permitted, provided that the opening between treads does not permit the passage of a
171 4-inch diameter (102 mm) sphere.

172 Exceptions.

173 1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).

174 2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches
175 (762 mm) or less."

176 (20) IRC, Section R312.2, is deleted.

177 (21) IRC, Sections R313.1 through R313.2.1, are deleted and replaced with the
178 following: "R313.1 Design and installation. When installed, automatic residential fire
179 sprinkler systems for townhouses or one- and two-family dwellings shall be designed and
180 installed in accordance with Section P2904 or NFPA 13D."

181 (22) In IRC, Section R314.2.2, the words "or accessory dwelling units" are added after
182 the words "sleeping rooms".

183 (23) In IRC, Section R315.2.2, the words "or accessory dwelling units" are added after
184 the words "sleeping rooms".

185 (24) In IRC, Section 315.3, the following words are added to the first sentence after the
186 word "installed": "on each level of the dwelling unit and."

187 (25) In IRC, Section R315.5, a new exception, 3, is added as follows:

188 "3. Hard wiring of carbon monoxide alarms in existing areas shall not be required where the
189 alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing
190 the structure, unless there is an attic, crawl space or basement available which could provide
191 access for hard wiring, without the removal of interior finishes."

192 (26) A new IRC, Section R315.7, is added as follows: " R315.7 Interconnection.

193 Where more than one carbon monoxide alarm is required to be installed within an individual
194 dwelling unit in accordance with Section R315.1, the alarm devices shall be interconnected in
195 such a manner that the actuation of one alarm will activate all of the alarms in the individual
196 unit. Physical interconnection of smoke alarms shall not be required where listed wireless
197 alarms are installed and all alarms sound upon activation of one alarm.

198 Exception: Interconnection of carbon monoxide alarms in existing areas shall not be required
199 where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing
200 the structure, unless there is an attic, crawl space or basement available which could provide

201 access for interconnection without the removal of interior finishes."

202 (27) In IRC, Section R317.1.5, the period is deleted and the following language is
203 added to the end of the paragraph: "or treated with a moisture resistant coating."

204 (28) In IRC, Section 326.1, the words "residential provisions of the" are added after the
205 words "pools and spas shall comply with".

206 (29) [~~In IRC, Section R327.1 is deleted and replaced with the following:~~] A new IRC,
207 Section 327, Stationary Storage Battery Systems, is added as follows:

208 "327.1 General. Energy storage systems (ESS) shall comply with the provisions of this
209 section.

210 Exceptions:

211 1. ESS listed and labeled in accordance with UL 9540 and marked "For use in residential
212 dwelling units", where installed in accordance with the manufacturer's instruction and NFPA
213 70.

214 2. ESS less than 1kWh (3.6 megajoules). [~~"(30) In IRC, Section R327.2 is deleted and
215 replaced with the following: "~~]

216 327.2 Equipment listings. ESS shall be listed and labeled in accordance with UL 9540.
217 Exception: Where approved, repurposed unlisted battery systems from electric vehicle are
218 allowed to be installed outdoors or in detached sheds located not less than 5 feet (1524 mm)
219 from exterior walls, property lines and public ways. [~~"(31) In IRC, Section R327.3 is deleted
220 and replaced with the following: "~~]

221 327.3 Installation. ESS shall be installed in accordance with the manufacturer's
222 instructions and their listing. [~~"(32) In IRC, Section R327, a new section 327.3.1 is added as
223 follows: "~~]

224 327.3.1 Spacing. Individual units shall be separate from each other by not less than
225 three feet (914 mm) except where smaller separation distances are documented to be adequate
226 based on large-scale fire testing complying with Section 1206.2.3 of the adopted International
227 Fire Code. [~~"(33) In IRC, Section 327.4 is deleted and replaced with the following: "~~]

228 327.4 Locations. ESS shall be installed only in the following locations:

229 1. Detached garages and detached accessory structures.

230 2. Attached garages separated from the dwelling unit living space in accordance with
231 Section R302.6.

232 3. Outdoors or on the exterior side of exterior walls located not less than 3 feet (914
233 mm) from doors and windows directly entering the dwelling unit.

234 4. Enclosed utility closets, basements, storage or utility spaces within dwelling units
235 with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished
236 wood-framed construction shall be provided with not less than 5/8-inch (15.9 mm) Type X
237 gypsum wallboard.

238 ESS shall not be installed in sleeping rooms, or closets or spaces opening directly into
239 sleeping rooms.~~["(34) In IRC, Section 327.5 is deleted and replaced with the following: "]~~

240 327.5 Energy ratings. Individual ESS units shall have a maximum rating of 20 kWh.
241 The aggregate rating of the ESS shall not exceed:

- 242 1. 40 kWh within utility closets, basements, and storage or utility spaces.
- 243 2. 80 kWh in attached or detached garages and detached accessory structures.
- 244 3. 80 kWh on exterior walls.
- 245 4. 80 kWh outdoors on the ground.

246 ESS installations exceeding the permitted individual or aggregate ratings shall be
247 installed in accordance with Sections 1206.2.1 through 1206.2.12 of the adopted International
248 Fire Code.~~["(35) In IRC, Section 327.6 is deleted and replaced with the following: "]~~

249 327.6 Electrical installation. ESS shall be installed in accordance with NFPA 70.
250 Inverters shall be listed and labeled in accordance with UL 1741 or provided as part of the UL
251 9540 listing. Systems connected to the utility grid shall use inverters listed for utility
252 interaction.~~["(36) In IRC, Section 327, a new section 327.7 is added as follows: "]~~

253 327.7 Fire detection. Rooms and areas within dwelling units, basements, and attached
254 garages in which ESS are installed shall be protected by smoke alarms in accordance with
255 Section R314. A heat detector, listed and interconnected to the smoke alarms, shall be installed
256 in locations within dwelling units and attached garages where smoke alarms cannot be installed
257 based on their listing.~~["(37) In IRC, Section 327, a new section 327.8 is added as follows: "]~~

258 327.8 Protection from impact. ESS installed in a location subject to vehicle damage
259 shall be protected by approved barriers.~~["(38) In IRC, Section 327, a new section 327.9 is
260 added as follows: "]~~

261 327.9 Ventilation. Indoor installations of ESS that include batteries that produce
262 hydrogen or other flammable gasses during charging shall be provided with mechanical

263 ventilation in accordance with Section M1307.4.~~["(39) In IRC, Section 327, a new section~~
264 ~~327.10 is added as follows: "~~"]

265 327.10 Electric vehicle use. The temporary use of an owner or occupant's
266 electric-powered vehicle to power a dwelling unit while parked in an attached or detached
267 garage or outdoors shall comply with the vehicle manufacturer's instructions and NFPA 70.~~["~~
268 ~~(40) In IRC, Section 327, a new section 327.11 is added as follows: "~~"]

269 327.11 Signage. A sign located on the exterior of the dwelling shall be installed at a
270 location approved by the authority having jurisdiction which identifies the battery chemistry
271 included in the ESS. This sign shall be of sufficient durability to withstand the environment
272 involved and shall not be handwritten."

273 ~~[(41)]~~ (30) In IRC, Section R403.1.6, a new Exception 3 is added as follows: "3.
274 When anchor bolt spacing does not exceed 32 inches (813 mm) apart, anchor bolts may be
275 placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm)
276 from each end of each plate section at interior bearing walls, interior braced wall lines, and at
277 all exterior walls."

278 ~~[(42)]~~ (31) In IRC, Section R403.1.6.1, a new exception is added at the end of Item 2
279 and Item 3 as follows: "Exception: When anchor bolt spacing does not exceed 32 inches (816
280 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located
281 not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls,
282 interior braced wall lines, and at all exterior walls."

283 ~~[(43)]~~ (32) In IRC, Section R404.1, a new exception is added as follows: "Exception:
284 As an alternative to complying with Sections R404.1 through R404.1.5.3, concrete and
285 masonry foundation walls may be designed in accordance with IBC Sections 1807.1.5 and
286 1807.1.6 as amended in Section 1807.1.6.4 and Table 1807.1.6.4 under these rules."

287 ~~[(44)]~~ (33) In IRC, Section R405.1, a new exception is added as follows: "Exception:
288 When a geotechnical report has been provided for the property, a drainage system is not
289 required unless the drainage system is required as a condition of the geotechnical report. The
290 geological report shall make a recommendation regarding a drainage system."

291 Section 2. Section **15A-3-203** is amended to read:

292 **15A-3-203. Amendments to Chapters 6 through 15 of IRC.**

293 (1) In IRC, Section N1101.5 (R103.2), all words after the words "herein governed." are

294 deleted and replaced with the following: "Construction documents include all documentation
295 required to be submitted in order to issue a building permit."

296 (2) In IRC, Section N1101.12 (R303.3), all wording after the first sentence is deleted.

297 (3) In IRC, Section N1101.13 (R401.2), add Exception as follows:

298 "Exception: A project complies if the project demonstrates compliance, using the
299 software RESCheck 2012 Utah Energy Conservation Code, of:

300 (a) on or after January 1, 2017, and before January 1, 2019, "3 percent better than
301 code";

302 (b) on or after January 1, 2019, and before January 1, 2021, "4 percent better than
303 code"; and

304 (c) after January 1, 2021, "5 percent better than code.""

305 (4) In IRC, Table N1102.2 (R402.1.2), in the column titled MASS WALL R-VALUE,
306 a new footnote j is added as follows:

307 "j. Log walls complying with ICC400 and with a minimum average wall thickness of 5 inches
308 or greater shall be permitted in Zones 5 through 8 when overall window glazing has a .31
309 U-factor or lower, minimum heating equipment efficiency is 90 AFUE (gas) or 84 AFUE (oil),
310 and all other component requirements are met."

311 (5) In IRC, Section N1102.4.1 (R402.4.1), in the first sentence, the word "and" is
312 deleted and replaced with the word "or."

313 (6) In IRC, Section N1102.4.1.1 (R402.4.1.1), the last sentence is deleted and replaced
314 with the following: "Where allowed by the code official, the builder may certify compliance to
315 components criteria for items which may not be inspected during regularly scheduled
316 inspections."

317 (7) In IRC, Section N1102.4.1.2 (R402.4.1.2), the following changes are made:

318 (a) In the first sentence:

319 (i) "The building or dwelling unit" is deleted and replaced with "A single-family
320 dwelling";

321 (ii) after January 1, 2019, replace the word "five" with "3.5"; and

322 (iii) the words "in Climate Zones 1 and 2, and three air changes per hour in Climate
323 Zones 3 through 8" are deleted.

324 (b) The following sentence is inserted after the first sentence: "A multi-family dwelling

325 and townhouse shall be tested and verified as having an air leakage rate of not exceeding five
326 air changes per hour."

327 (c) In the third sentence, the word "third" is deleted.

328 (d) The following sentence is inserted after the third sentence: "The following parties
329 shall be approved to conduct testing: Parties certified by BPI or RESNET, or licensed
330 contractors who have completed training provided by Blower Door Test equipment
331 manufacturers or other comparable training."

332 (8) In IRC, Section N1103.3.3 (R403.3.3):

333 (a) the exception for duct air leakage testing is deleted; and

334 (b) the exception for duct air leakage is replaced:

335 (i) on or after January 1, 2017, and before January 1, 2019, with the following:

336 "Exception: The duct air leakage test is not required for systems with all air handlers and at
337 least 65% of all ducts (measured by length) located entirely within the building thermal
338 envelope.";

339 (ii) on or after January 1, 2019, and before January 1, 2021, with the following:

340 "Exception: The duct air leakage test is not required for systems with all air handlers and at
341 least 75% of all ducts (measured by length) located entirely within the building thermal
342 envelope."; and

343 (iii) on or after January 1, 2021, with the following: "Exception: The duct air leakage
344 test is not required for systems with all air handlers and at least 80% of all ducts (measured by
345 length) located entirely within the building thermal envelope."

346 (9) In IRC, Section N1103.3.3 (R403.3.3), the following is added after the exception:

347 "The following parties shall be approved to conduct testing: Parties certified by BPI or
348 RESNET, or licensed contractors who have completed either training provided by Duct Test
349 equipment manufacturers or other comparable training."

350 (10) In IRC, Section N1103.3.4 (R403.3.4):

351 (a) in Subsection 1, the number 4 is changed to 8, the number 113.3 is changed to 170,
352 the number 3 is changed to 6, the number 85 is changed to 114.6; and

353 (b) in Subsection 2:

354 (i) on or after January 1, 2017, and before January 1, 2019, the number 4 is changed to
355 8 and the number 113.3 is changed to 226.5;

356 (ii) on or after January 1, 2019, and before January 1, 2021, the number 4 is changed to
 357 7 and the number 113.3 is changed to 198.2; and

358 (iii) on or after January 1, 2021, the number 4 is changed to 6 and the number 113.3 is
 359 changed to 169.9.

360 (11) In IRC, Section N1103.3.5 (R403.3.5), the words "or plenums" are deleted.

361 (12) In IRC, Section N1103.5.3 (R403.5.3), Subsection 5 is deleted and Subsections 6
 362 and 7 are renumbered.

363 (13) IRC, Section N1103.6.1 (R403.6.1), is deleted and replaced with the following:

364 "N1103.6.1 (R403.6.1) Whole-house mechanical ventilation system fan efficacy. Fans used to
 365 provide whole-house mechanical ventilation shall meet the efficacy requirements of Table
 366 N1103.6.1 (R403.6.1).

367 Exception: Where an air handler that is integral to tested and listed HVAC equipment is
 368 used to provide whole-house mechanical ventilation, the air handler shall be powered by an
 369 electronically commutated motor."

370 (14) In IRC, Section N1103.6.1 (R403.6.1), the table is deleted and replaced with the
 371 following:

372 TABLE N1103.6.1 (R403.6.1)

373 MECHANICAL VENTILATION SYSTEM FAN EFFICACY

FAN LOCATION	AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY (CFM/WATT)	AIR FLOW RATE MAXIMUM (CFM)
HRV or ERV	Any	1.2 cfm/watt	Any
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	<90
Bathroom, utility room	90	2.8 cfm/watt	Any

380 (15) In IRC, Section N1106.4 (R406.4), the table is deleted and replaced with the
 381 following:

382 TABLE N1106.4 (R406.4)

383 MAXIMUM ENERGY RATING INDEX

384	CLIMATE ZONE	ENERGY RATING INDEX
385	3	65
386	5	69
387	6	68

388 (16) In IRC, Section N1103.7 the word "approved" is deleted in the first sentence and
 389 the following is added after the word methodologies ", complying with N1103.7.1".

390 (17) A new IRC, Section N1103.7.1 is added as follows: "N1103.7.1 Qualifications.
 391 An individual performing load calculations shall be qualified by completing HVAC load
 392 calculation training from one of the following:

- 393 1. HVAC load calculation education from ACCA;
- 394 2. A recognized educational institution;
- 395 3. HVAC equipment manufacturer's training; or
- 396 4. Other recognized industry certification."

397 ~~[(+6)]~~ (18) In IRC, Section M1307.2, the words "In Seismic Design Categories D0, D1,
 398 and D2, and in townhouses in Seismic Design Category C", are deleted, and in Subparagraph 1,
 399 the last sentence is deleted.

400 (19) In IRC, Section M1401.3 the word "approved" is deleted in the first sentence and
 401 the following is added after the word methodologies ", complying with M1401.3.1".

402 (20) A new IRC, Section M1401.3.1, is added as follows: "M1401.3.1 Qualifications.
 403 An individual performing load calculations shall be qualified by completing HVAC load
 404 calculation training from one of the following:

- 405 1. HVAC load calculation education from ACCA;
- 406 2. A recognized educational institution;
- 407 3. HVAC equipment manufacturer's training; or
- 408 4. Other recognized industry certification."

409 (21) In IRC, Section M1402.1, the following is added at the end of the second
 410 sentence: "or UL/CSA [60335-2-40](#)."

411 (22) In IRC, Section M1403.1, the characters "/ANCE" are deleted.

412 ~~[(+7)]~~ (23) IRC, Section M1411.8, is deleted.

413 (24) In IRC, Section M1412.1, the characters "/ANCE" are deleted.

414 (25) In IRC, Section M1413.1, the characters "/ANCE" are deleted.

415 Section 3. Section **15A-3-205** is amended to read:

416 **15A-3-205. Amendments to Chapters 26 through 35 of IRC.**

417 (1) A new IRC, Section P2602.3, is added as follows: "P2602.3 Individual water
418 supply. Where a potable public water supply is not available, individual sources of potable
419 water supply shall be utilized, provided that the source has been developed in accordance with
420 Utah Code, Sections [73-3-1](#) and [73-3-25](#), as administered by the Department of Natural
421 Resources, Division of Water Rights. In addition, the quality of the water shall be approved by
422 the local health department having jurisdiction."

423 (2) A new IRC, Section P2602.4, is added as follows: "P2602.4 Sewer required. Every
424 building in which plumbing fixtures are installed and all premises having drainage piping shall
425 be connected to a public sewer where the sewer is accessible and is within 300 feet of the
426 property line in accordance with Utah Code, Section [10-8-38](#); or an approved private sewage
427 disposal system in accordance with Utah Administrative Code, Chapter 4, Rule R317, as
428 administered by the Department of Environmental Quality, Division of Water Quality."

429 (3) In IRC, Section P2705, Item 5, the words "lavatory" and "lavatories" are deleted.

430 (4) In IRC, Section P2705, a new Item 6 is added as follows: "6. Lavatories. A lavatory
431 shall not be set closer than 12 inches from its center to any side wall or partition. A lavatory
432 shall be provided with a clearance of 24 inches in width and 21 inches in depth in front of the
433 lavatory to any side wall, partition, or obstruction." Remaining item numbers are renumbered
434 accordingly.

435 (5) In IRC, Section P2801.8, all words in the first sentence up to the word "water" are
436 deleted.

437 (6) A new IRC, Section P2902.1.1, is added as follows: "P2902.1.1 Backflow assembly
438 testing. The premise owner or the premise owner's designee shall have backflow prevention
439 assemblies operation tested in accordance with administrative rules made by the Drinking
440 Water Board at the time of installation, repair, and relocation and at least on an annual basis
441 thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be
442 performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject
443 to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker
444 Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector

445 Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and
446 Reduced Pressure Detector Assembly. Third-party certification for backflow prevention
447 assemblies will consist of any combination of two certifications, laboratory or field.
448 Acceptable third-party laboratory certifying agencies are ASSE, IAPMO, and USC-FCCCHR.
449 USC-FCCCHR currently provides the only field testing of backflow protection assemblies.
450 Also see www.drinkingwater.utah.gov and rules made by the Drinking Water Board."

451 (7) In IRC, Section P2902.1, the following subsections are added as follows:

452 "P2902.1.1 General Installation Criteria.

453 Assemblies shall not be installed more than five feet above the floor unless a permanent
454 platform is installed. The assembly owner, where necessary, shall provide devices or structures
455 to facilitate testing, repair, and maintenance, and to insure the safety of the backflow
456 technician.

457 P2902.1.2 Specific Installation Criteria.

458 P2902.1.2.1 Reduced Pressure Principle [~~Backflow~~] Backflow Prevention Assembly.

459 The reduced pressure principle backflow prevention assembly shall be installed as
460 follows:

- 461 a. The assembly may not be installed in a pit.
- 462 b. The relief valve of the assembly shall not be directly connected to a waste disposal line,
463 including a sanitary sewer, a storm drain, or a vent.
- 464 c. The assembly shall be installed in a horizontal position only, unless listed or approved for
465 vertical installation in accordance with Section 303.4.
- 466 d. The bottom of the assembly shall be installed a minimum of 12 inches above the floor or
467 ground.
- 468 e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or
469 obstacle, and shall be readily accessible for testing, repair, and maintenance.

470 P2902.1.2.2 Double Check Valve Backflow Prevention Assembly.

471 A double check valve backflow prevention assembly shall be installed as follows:

- 472 a. The assembly shall be installed in a horizontal position only, unless listed or approved for
473 vertical installation.
- 474 b. The bottom of the assembly shall be a minimum of 12 inches above the ground or floor.
- 475 c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or

476 obstacle, and shall be readily accessible for testing, repair, and maintenance.

477 d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance
478 between all sides of the vault, including the floor and roof or ceiling, with adequate room for
479 testing and maintenance.

480 P2902.1.2.3 Pressure Vacuum Break Assembly and Spill Resistant Pressure Vacuum Breaker
481 Assembly.

482 A pressure vacuum break assembly or a spill resistant pressure vacuum breaker assembly shall
483 be installed as follows:

484 a. The assembly shall not be installed in an area that could be subject to backpressure or back
485 drainage conditions.

486 b. The assembly shall be installed a minimum of 12 inches above all downstream piping and
487 the highest point of use.

488 c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall
489 be readily accessible for testing, repair, and maintenance.

490 d. The assembly shall not be installed below ground, in a vault, or in a pit.

491 e. The assembly shall be installed in a vertical position."

492 (8) In IRC, Table 2903.2, the following changes are made in the column titled
493 "MAXIMUM FLOW RATE OR QUANTITY":

494 (a) In the row titled "Lavatory faucet" the text is deleted and replaced with "1.5 gpm at
495 60 psi".

496 (b) In the row titled "Shower head" the text is deleted and replaced with "2 gpm at 80
497 psi".

498 [~~8~~] (9) In IRC, Section 2903.5, at the beginning of the second sentence, insert "If
499 installed,".

500 [~~9~~] (10) In IRC, Section P2903.9.3, the first sentence is deleted and replaced with the
501 following: "Unless the plumbing appliance or plumbing fixture has a wall-mount valve, shutoff
502 valves shall be required on each fixture supply pipe to each plumbing appliance and to each
503 plumbing fixture other than bathtubs and showers."

504 [~~10~~] (11) IRC, Section P2910.5, is deleted and replaced with the following:
505 "P2910.5 Potable water connections.

506 When a potable water system is connected to a nonpotable water system, the potable water

507 system shall be protected against backflow by a reduced pressure backflow prevention
508 assembly or an air gap installed in accordance with Section 2901."

509 ~~[(11)]~~ (12) IRC, Section P2910.9.5, is deleted and replaced with the following:
510 "P2910.9.5 Makeup water.

511 Where an uninterrupted nonpotable water supply is required for the intended application,
512 potable or reclaimed water shall be provided as a source of makeup water for the storage tank.
513 The makeup water supply shall be protected against backflow by means of an air gap not less
514 than 4 inches (102 millimeters) above the overflow or by a reduced pressure backflow
515 prevention assembly installed in accordance with Section 2902."

516 ~~[(12)]~~ (13) In IRC, Section P2911.12.4, the following words are deleted: "and
517 backwater valves."

518 ~~[(13)]~~ (14) In IRC, Section P2912.15.6, the following words are deleted: "and
519 backwater valves."

520 ~~[(14) In IRC, Section P2913.4.2, the following words are deleted: "and backwater
521 valves."]~~

522 (15) IRC, Section P3009, is deleted and replaced with the following:

523 "P3009 Connected to nonpotable water from on-site water reuse systems.
524 Nonpotable systems utilized for subsurface irrigation for single-family residences shall comply
525 with the requirements of R317-401, UAC, Graywater Systems."

526 (16) In IRC, Section P3103.6, the following sentence is added at the end of the
527 paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the
528 wall with an elbow pointing downward."

529 (17) In IRC, Section P3104.4, the following sentence is added at the end of the
530 paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain
531 and floor sink installations when installed below grade in accordance with Chapter 30, and
532 Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent."

533 Section 4. Section **15A-3-206** is amended to read:

534 **15A-3-206. Amendments to Chapters 37, 39, and 44 and Appendix F of IRC.**

535 (1) In IRC, Section E3601.6.2, a new exception is added as follows: "Exception: An
536 occupant of an accessory dwelling unit is not required to have access to the disconnect serving
537 the dwelling unit in which they reside."

538 (2) In IRC, Section E3705.4.5, the following words are added after the word
539 "assemblies": "with ungrounded conductors 10 AWG and smaller".

540 (3) In IRC, Section E3901.4.5, the last sentence in the exception is deleted and
541 replaced with the following: "Receptacles mounted below the countertop in accordance with
542 this exception shall not be located more than 14 inches from the bottom leading edge of the
543 countertop."

544 (4) In IRC, Section E3901.9, the following exception is added:
545 "Exception: Receptacles or other outlets adjacent to the exterior walls of the garage, outlets
546 adjacent to an exterior wall of the garage, or outlets in a storage room with entry from the
547 garage may be connected to the garage branch circuit."

548 (5) IRC, Section E3902.16 is deleted.

549 (6) In Section E3902.17:

550 (a) following the word "Exception" the number "1." is added; and

551 (b) at the end of the section, the following sentences are added:

552 "2. This section does not apply for a simple move or an extension of a branch circuit or an
553 outlet which does not significantly increase the existing electrical load. This exception does
554 not include changes involving remodeling or additions to a residence."

555 (7) IRC, Chapter 44, is amended by deleting the standard for "ANCE."

556 (8) In IRC, Chapter 44, the standard for ASHRAE is amended by changing "34-2013"
557 to "34-2019."

558 (9) In IRC, Chapter 44, the standard for CSA, is amended by changing the:

559 (a) standard reference number "UL/CSA/ANCE 60335-2-40-2012" to "UL/CSA
560 60335-2-40-2019"; and

561 (b) title "Standard for Household and Similar Electrical Appliances, Part 2: Particular
562 Requirements for Motor-Compressors" to "Standard for Household and Similar Electrical
563 Appliances, Part 2-40, Requirements for Electric Heat Pumps, Air Conditioners and
564 Dehumidifiers-3rd Edition."

565 (10) In IRC, Chapter 44, the standard for UL, is amended by changing the:

566 (a) standard reference number "1995-2011" to "1995-2015";

567 (b) standard reference number "UL/CSA/ANCE 60335-2-40-2012" to "UL/CSA
568 60335-2-40-2019"; and

569 (c) title "Standard for Household and Similar Electrical Appliances, Part 2: Particular
 570 Requirements for Motor-Compressors" to "Standard for Household and Similar Electrical
 571 Appliances, Part 2-40, Requirements for Electric Heat Pumps, Air Conditioners and
 572 Dehumidifiers-3rd Edition."

573 [~~7~~] (11) IRC, Chapter 44, is amended by adding the following reference standard:

"Standard reference number	Title	Referenced in code section number
USC-FCCCHR 10th Edition Manual of Cross Connection Control	Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531	Table P2902.3"

576 [~~8~~] (12) In IRC, Chapter 44, is amended by adding the following reference standard:
 577 "UL 9540-20: Energy Storage Systems and Equipment; R327.1, R327.2 and R327.6."

578 [~~9~~] (13) (a) When passive radon controls or portions thereof are voluntarily installed,
 579 the voluntary installation shall comply with Appendix F of the IRC.

580 (b) An additional inspection of a voluntary installation described in Subsection (9)(a) is
 581 not required.

582 Section 5. Section **15A-3-306** is amended to read:

583 **15A-3-306. Amendments to Chapter 6 of IPC.**

584 (1) IPC, Section 602.3, is deleted and replaced with the following: "602.3 Individual
 585 water supply. Where a potable public water supply is not available, individual sources of
 586 potable water supply shall be utilized provided that the source has been developed in
 587 accordance with Utah Code, Sections **73-3-1**, **73-3-3**, and **73-3-25**, as administered by the
 588 Department of Natural Resources, Division of Water Rights. In addition, the quality of the
 589 water shall be approved by the local health department having jurisdiction. The source shall
 590 supply sufficient quantity of water to comply with the requirements of this chapter."

591 (2) IPC, Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5, and 602.3.5.1, are
 592 deleted.

593 (3) In IPC, Table 604.4, the following changes are made in the column titled
 594 "MAXIMUM FLOW RATE OR QUANTITY":

595 (a) In the row titled "Lavatory, private" the text is deleted and replaced with "1.5 gpm

596 at 60 psi".

597 (b) In the row titled "Shower head" the text is deleted and replaced with "2 gpm at 80
598 psi".

599 (c) In the row titled "Urinal" the text is deleted and replaced with "0.5 gallon per
600 flushing cycle".

601 [~~3~~] (4) A new IPC, Section 604.4.1, is added as follows: "604.4.1 Manually operated
602 metering faucets for food service establishments. Self closing or manually operated metering
603 faucets shall provide a flow of water for at least 15 seconds without the need to reactivate the
604 faucet."

605 [~~4~~] (5) IPC, Section 606.5, is deleted and replaced with the following: "606.5 Water
606 pressure booster systems. Water pressure booster systems shall be provided as required by
607 Section 606.5.1 through 606.5.11."

608 [~~5~~] (6) A new IPC, Section 606.5.11, is added as follows: "606.5.11 Prohibited
609 installation. In no case shall a booster pump be allowed that will lower the pressure in the
610 public main to less than the minimum water pressure specified in Utah Administrative Code
611 R309-105-9."

612 [~~6~~] (7) In IPC, Section 608.1, the words "and pollution" are added after the word
613 "contamination."

614 [~~7~~] (8) In IPC, Section 608.1, the following subsections are added as follows:
615 "608.1.1 General Installation Criteria.

616 An assembly shall not be installed more than five feet above the floor unless a permanent
617 platform is installed. The assembly owner, where necessary, shall provide devices or structures
618 to facilitate testing, repair, and maintenance and to insure the safety of the backflow technician.

619 608.1.2 Specific Installation Criteria.

620 608.1.2.1 Reduced Pressure Principle [~~Backflow~~] Backflow Prevention Assembly.

621 A reduced pressure principle backflow prevention assembly shall be installed as follows:

622 a. The assembly shall not be installed in a pit or below grade where the relief port could be
623 submerged in water or where fumes could be present at the relief port discharge.

624 b. The relief valve of the assembly shall not be directly connected to a waste disposal line,
625 including a sanitary sewer, storm drain, or vent.

626 c. The assembly shall be installed in a horizontal position, unless the assembly is listed or

627 approved for vertical installation in accordance with Section 303.4.

628 d. The bottom of each assembly shall be installed a minimum of 12 inches above the ground or
629 the floor.

630 e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or
631 obstacle, and shall be readily accessible for testing, repair, and maintenance.

632 608.1.2.2 Double Check Valve Backflow Prevention Assembly.

633 A double check valve backflow prevention assembly shall be installed as follows:

634 a. The assembly shall be installed in a horizontal position unless the assembly is listed or
635 approved for vertical installation.

636 b. The bottom of the assembly shall be a minimum of 12 inches above the ground or the floor.

637 c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or
638 obstacle, and shall be readily accessible for testing, repair, and maintenance.

639 d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance
640 around all sides of the vault, including the floor and roof or ceiling, with adequate room for
641 testing and maintenance.

642 608.1.2.3 Pressure Vacuum Breaker Assembly and Spill Resistant Pressure Vacuum Breaker
643 Assembly.

644 A pressure vacuum breaker assembly and spill resistant pressure vacuum breaker assembly
645 shall be installed as follows:

646 a. The assembly shall not be installed in an area that could be subject to backpressure or back
647 drainage conditions.

648 b. The assembly shall be installed a minimum of 12 inches above all downstream piping and
649 the highest point of use.

650 c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall
651 be readily accessible for testing, repair, and maintenance.

652 d. The assembly shall not be installed below ground or in a vault or pit.

653 e. The assembly shall be installed in a vertical position."

654 [~~(8)~~] (9) In IPC, Section 608.3, the word "and" before the word "contamination" is
655 deleted and replaced with a comma and the words " or pollution" are added after the word
656 "contamination" in the first sentence.

657 [~~(9)~~] (10) In IPC, Section 608.6, the words "with the potential to create a condition of

658 either contamination or pollution or" are added after the word "substances."

659 ~~[(10)]~~ (11) In IPC, Section 608.7, the following sentence is added at the end of the
660 paragraph: "Any connection between potable water piping and sewer-connected waste shall be
661 protected by an air gap in accordance with Section 608.14.1."

662 ~~[(11)]~~ (12) IPC, Section 608.8, is deleted and replaced with the following: " 608.8 Stop
663 and Waste Valves installed below grade. Combination stop-and-waste valves shall be
664 permitted to be installed underground or below grade. Freeze proof yard hydrants that drain
665 the riser into the ground are considered to be stop-and-waste valves and shall be permitted. A
666 stop-and-waste valve shall be installed in accordance with a manufacturer's recommended
667 installation instructions."

668 ~~[(12)]~~ (13) IPC, Section 608.14.3, is deleted and replaced with the following: "
669 608.14.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with
670 intermediate atmospheric vents shall conform to ASSE 1012 or CSA CAN/CSA-B64.3. These
671 devices shall be permitted to be installed on residential boilers, without chemical treatment,
672 where subject to continuous pressure conditions, and humidifiers in accordance with Section
673 608.17.10. The relief opening shall discharge by air gap and shall be prevented from being
674 submerged."

675 ~~[(13)]~~ (14) IPC, Section 608.14.4, is deleted.

676 ~~[(14)]~~ (15) IPC, Section 608.16.3, is deleted and replaced with the following: "
677 608.16.3 Protection by a backflow preventer with intermediate atmospheric vent. Connections
678 to residential boilers only, without chemical treatment, and humidifiers shall be protected by a
679 backflow preventer with an intermediate atmospheric vent."

680 ~~[(15)]~~ (16) IPC, Section 608.16.4, is deleted and replaced with the following: "
681 608.16.4 Protection by a vacuum breaker. Openings and outlets shall be protected by
682 atmospheric-type or pressure-type vacuum breakers. Vacuum breakers shall not be installed
683 under exhaust hoods or similar locations that will contain toxic fumes or vapors. Fill valves
684 shall be set in accordance with Section 425.3.1. Atmospheric Vacuum Breakers - The critical
685 level of the atmospheric vacuum breaker shall be set a minimum of 6 inches (152 mm) above
686 the flood level rim of the fixture or device. Pipe-applied vacuum breakers shall be installed not
687 less than 6 inches (152 mm) above the flood level rim of the fixture, receptor, or device served.
688 No valves shall be installed downstream of the atmospheric vacuum breaker. The atmospheric

689 vacuum breaker shall not be installed where it may be subjected to continuous pressure for
690 more than 12 consecutive hours at any time. Pressure Vacuum Breaker - The critical level of
691 the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood
692 level of the fixture or device."

693 ~~[(16)]~~ (17) In IPC, Section 608.16.4.2, the following is added after the first sentence:
694 "Add-on-backflow prevention devices shall be non-removable. In climates where freezing
695 temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow
696 preventer shall be used."

697 ~~[(17)]~~ (18) In IPC, Section 608.17.1.2, the words "or ASSE 1024" are deleted.

698 ~~[(18)]~~ (19) IPC, Section 608.17.2, is deleted and replaced as follows: " 608.17.2
699 Connections to boilers. The potable supply to a boiler shall be protected by an air gap or a
700 reduced pressure principle backflow preventer, complying with ASSE 1013, CSA B64.4 or
701 AWWA C511.

702 Exception: The potable supply to a residential boiler without chemical treatment may be
703 equipped with a backflow preventer with an intermediate atmospheric vent complying with
704 ASSE 1012 or CSA CAN/CSA-B64.3."

705 ~~[(19)]~~ (20) In IPC, Section 608.17.4.1, a new exception is added as follows:
706 "Exception: All class 1 and 2 systems containing chemical additives consisting of strictly
707 glycerine (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall be protected against
708 backflow with a double check valve assembly. Such systems shall include written certification
709 of the chemical additives at the time of original installation and service or maintenance."

710 ~~[(20)]~~ (21) IPC, Section 608.17.7, is deleted and replaced with the following: "
711 608.17.7 Chemical dispensers. Where chemical dispensers connect to the water distribution
712 system, the water supply system shall be protected against backflow in accordance with Section
713 608.14.1, Section 608.14.2, Section 608.14.5, Section 608.14.6 or Section 608.14.8.
714 Installation shall be in accordance with Section 608.1.2. Chemical dispensers shall connect to a
715 separate dedicated water supply line, and not a sink faucet."

716 ~~[(21)]~~ (22) IPC, Section 608.17.8, is deleted and replaced with the following: "
717 608.17.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the
718 water distribution system, the water supply system shall be protected against backflow in
719 accordance with Section 608.14.1 or Section 608.14.2."

720 [~~(22)~~] (23) A new IPC, Section 608.17.11, is added as follows: " 608.17.11 Automatic
721 and coin operated car washes. The water supply to an automatic or coin operated car wash
722 shall be protected in accordance with Section 608.14.1 or Section 608.14.2."

723 [~~(23)~~] (24) IPC, Section 608.18, is deleted and replaced with the following: " 608.18
724 Protection of individual water supplies. See Section 602.3 for requirements."

725 Section 6. Section **15A-3-402** is amended to read:

726 **15A-3-402. Amendments to Chapters 1 through 5 of IMC.**

727 (1) In IMC, Table 403.3.1.1, note h is deleted and replaced with the following:

728 "h. 1. A nail salon shall provide each manicure station where a nail technician files or
729 shapes an acrylic nail, as defined by rule by the Division of Occupational and Professional
730 Licensing, in accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act,
731 with:

732 a. a source capture system equipped with, at minimum, a MERV 8 particulate filter and
733 an activated carbon filter that is capable of filtering and recirculating air to inside space at a
734 rate not less than 50 cfm per station; or

735 b. a source capture system capable of exhausting not less than 50 cfm per station.

736 c. A nail salon that complies with Note h. 1a or h. 1b is not required to comply with the
737 labeling, listing, or testing requirements described in International Mechanical Code sections
738 301.7 or 301.8.

739 2. For a source capture system described in paragraph 1, the source capture system
740 inlets for exhausting or recirculating air shall be located in accordance with Section 502.20.

741 3. Where one or more exhausting source capture systems described in paragraph 1
742 operate continuously during occupancy, the source capture system exhaust rate shall be
743 permitted to be applied to the exhaust flow rate required by Table 403.3.1.1 for the nail salon.

744 4. The requirements of this note apply to:

745 a. an existing nail salon that remodels the nail salon after July 1, 2017;

746 b. a new nail salon that begins construction after July 1, 2017; and

747 c. all nail salons beginning on July 1, 2020."

748 (2) In IMC, Section 502.20 is deleted and rewritten as follows:

749 "502.20 Manicure stations. A nail salon that files or shapes an acrylic nail shall provide
750 each manicure station with a source capture system in accordance with Table 403.3.1.1, note h.

751 For a manicure table that does not have factory-installed source capture system inlets for
 752 recirculating or exhausting air, a nail salon shall provide the manicure table with inlets for
 753 recirculating or exhausting air located not more than 12 inches (305 mm) horizontally and
 754 vertically from the point of any acrylic chemical application.

755 Exception: Section 502.20 applies to a manicure station in:

- 756 a. an existing nail salon that remodels the nail salon after July 1, 2017;
- 757 b. a new nail salon that begins construction after July 1, 2017; and
- 758 c. all nail salons beginning on July 1, 2020."

759 (3) In IMC, Section 908.1, the following words are added at the end of the last
 760 sentence: "or UL/CSA 60335-2-40."

761 (4) In IMC, Section 918.1, the following words are added after "1995": "or UL/CSA
 762 60335-2-40."

763 (5) In IMC, Section 918.2, the following words are added at the end of the sentence:
 764 "or UL/CSA 60335-2-40."

765 (6) In IMC, Section 1101.2, the words "471 or 1995" are deleted and replaced with
 766 "471, 1995, or UL/CSA 60335-2-40."

767 (7) In IMC, Section 1101.6, the following sentence is added at the end of the
 768 paragraph: "High probability systems utilizing A2L refrigerants shall comply with ASHRAE
 769 15."

770 (8) In IMC, Chapter 15, the standard for ASHRAE, is amended by changing the:

- 771 (a) standard reference number "15-2016" to "15-2019"; and
- 772 (b) standard reference number "34-2016" to "34-2019";

773 (9) In IMC, Chapter 15 is amended by adding the following referenced standard to
 774 CSA:

<u>"Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>CSA: CSA C22.2 60335-2-40-2019</u>	<u>Standard for Household and Similar Electrical Appliances, Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers – 3rd Edition</u>	<u>M1403.1, M1412.1, M1413.1"</u>

777 (10) In IMC, Chapter 15 is amended by adding the following referenced standard to
 778 UL:

<u>"Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
UL: 60335-2-40-2019	Standard for Household and Similar Electrical Appliances, Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers – 3rd Edition	M1403.1, M1412.1, M1413.1"

781 Section 7. Section **15A-5-202** is amended to read:

782 **15A-5-202. Amendments and additions to IFC related to administration, permits,**

783 **definitions, and general and emergency planning.**

784 (1) For IFC, Chapter 1, Scope and Administration:

785 (a) IFC, Chapter 1, Section 102.5, is deleted and rewritten as follows:

786 "102.5 Application of residential code.

787 If a structure is designed and constructed in accordance with the International

788 Residential Code, the provisions of this code apply only as follows:

789 1. The construction and design provisions of this code apply only to premises

790 identification, fire apparatus access, fire hydrants and water supplies, and construction permits

791 required by Section 105.7.

792 2. This code does not supercede the land use, subdivision, or development standards

793 established by a local jurisdiction.

794 3. The administrative, operational, and maintenance provisions of this code apply."

795 (b) IFC, Chapter 1, Section 102.9, is deleted and rewritten as follows:

796 "102.9 Matters not provided for.

797 Requirements that are essential for the public safety of an existing or proposed activity,

798 building or structure, or for the safety of the occupants thereof, which are not specifically

799 provided for by this code, shall be determined by the fire code official on an emergency basis

800 if:

801 (a) the facts known to the fire code official show that an immediate and significant

802 danger to the public health, safety, or welfare exists; and

803 (b) the threat requires immediate action by the fire code official.

804 102.9.1 Limitation of emergency order.

805 In issuing its emergency order, the fire code official shall:

806 (a) limit the order to require only the action necessary to prevent or avoid the danger to
807 the public health, safety, or welfare; and

808 (b) give immediate notice to the persons who are required to comply with the order,
809 that includes a brief statement of the reasons for the fire code official's order.

810 101.9.2 Right to appeal emergency order.

811 If the emergency order issued under this section will result in the continued
812 infringement or impairment of any legal right or interest of any party, the party shall have a
813 right to appeal the fire code official's order in accordance with IFC, Chapter 1, Section 109."

814 (c) IFC, Chapter 1, Section 105.4.1, Submittals, is amended to add the following after
815 the last sentence:

816 "Fire sprinkler system layout may be prepared and submitted by a person certified by
817 the National Institute for Certification in Engineering Technologies at level III or IV in
818 Water-Based System Layout. Fire alarm system layout may be prepared and submitted by a
819 person certified by the National Institute for Certification in Engineering Technologies at level
820 III or IV in Fire Alarm Systems."

821 [~~(c)~~] (d) IFC, Chapter 1, Section 105.6.16, Flammable and combustible liquids, is
822 amended to add the following section: "12. The owner of an underground tank that is out of
823 service for longer than one year shall receive a Temporary Closure Notice from the Department
824 of Environmental Quality and a copy shall be given to the AHJ."

825 [~~(d)~~] (e) A new IFC, Chapter 1, Section 109.1.1, Application of residential code, is
826 added as follows:

827 "109.1.1 Application of residential code.

828 For development regulated by a local jurisdiction's land use authority, the fire code
829 official's interpretation of this code is subject to the advisory opinion process described in Utah
830 Code, Section 13-43-205, and to a land use appeal authority appointed under Utah Code,
831 Section 10-9a-701 or 17-27a-701."

832 [~~(e)~~] (f) In IFC, Chapter 1, Section 109, a new Section 109.4, Notice of right to appeal,

833 is added as follows: "At the time a fire code official makes an order, decision, or determination
834 that relates to the application or interpretation of this chapter, the fire code official shall inform
835 the person affected by the order, decision, or determination of the person's right to appeal under
836 this section. Upon request, the fire code official shall provide a person affected by an order,
837 decision, or determination that relates to the application or interpretation of this chapter a
838 written notice that describes the person's right to appeal under this section."

839 ~~(f)~~ (g) IFC, Chapter 1, Section 110.3, Notice of violation, is deleted and rewritten as
840 follows:

841 "110.3 Notice of violation.

842 If the fire code official determines that a building, premises, vehicle, storage facility, or
843 outdoor area is in violation of this code or other pertinent laws or ordinances, the fire code
844 official is authorized to prepare a written notice of violation that describes the conditions
845 deemed unsafe and, absent immediate compliance, specifies a time for reinspection."

846 (2) For IFC, Chapter 2, Definitions:

847 (a) IFC, Chapter 2, Section 202, General Definitions, the following definition is added
848 for Ambulatory Surgical Center: "AMBULATORY SURGICAL CENTER. A building or
849 portion of a building licensed by the Department of Health where procedures are performed
850 that may render patients incapable of self preservation where care is less than 24 hours. See
851 Utah Administrative Code, R432-13, Freestanding Ambulatory Surgical Center Construction
852 Rule."

853 (b) IFC, Chapter 2, Section 202, General Definitions, the following definition is added
854 for Assisted Living Facility. "ASSISTED LIVING FACILITY. See Residential
855 Treatment/Support Assisted Living Facility, Type I Assisted Living Facility, and Type II
856 Assisted Living Facility."

857 (c) IFC, Chapter 2, Section 202, General Definitions, FOSTER CARE FACILITIES is
858 amended as follows: The word "Foster" is changed to the word "Child."

859 (d) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY
860 CLASSIFICATION, Educational Group E, Group E, day care facilities, is amended as follows:

861 (i) On line three delete the word "five" and replace it with the word "four"; and

862 (ii) On line four after the word "supervision" add the words "child care centers."

863 (e) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY

864 CLASSIFICATION, Educational Group E, Five or fewer children, is amended as follows: The
865 word "five" is deleted and replaced with the word "four" in both places.

866 (f) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY

867 CLASSIFICATION, Educational Group E, Five or fewer children in a dwelling unit, is
868 amended as follows: The word "five" is deleted and replaced with the word "four" in both
869 places.

870 (g) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY

871 CLASSIFICATION, Educational Group E, a new section is added as follows: "Child day care
872 -- residential child care certificate or a license. Areas used for child day care purposes with a
873 residential child care certificate, as described in Utah Administrative Code, R430-50,
874 Residential Certificate Child Care, or a residential child care license, as described in Utah
875 Administrative Code, R430-90, Licensed Family Child Care, may be located in a Group R-2 or
876 R-3 occupancy as provided in Residential Group R-3, or shall comply with the International
877 Residential Code in accordance with Section R101.2."

878 (h) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY

879 CLASSIFICATION, Educational Group E, a new section is added as follows: "Child care
880 centers. Each of the following areas may be classified as accessory occupancies:

881 1. Hourly child care centers, as described in Utah Administrative Code, R381-60,

882 Hourly Child Care Centers;

883 2. Child care centers, as described in Utah Administrative Code, R381-100, Child Care
884 Centers; and

885 3. Out-of-school-time programs, as described in Utah Administrative Code, R381-70,

886 Out of School Time Child Care Programs."

887 (i) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY

888 CLASSIFICATION, Institutional Group I-1, is amended as follows: Insert "Type I" in front of
889 the words "Assisted living facilities".

890 (j) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY

891 CLASSIFICATION, Institutional Group I-1, Five or fewer persons receiving custodial care is
892 amended as follows: On line four after "International Residential Code" the rest of the section
893 is deleted.

894 (k) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY

895 CLASSIFICATION, Institutional Group I-2, is amended as follows:

- 896 (i) On line three delete the word "five" and insert the word "three";
- 897 (ii) On line six the word "foster" is deleted and replaced with the word "child"; and
- 898 (iii) On line 10, after the words "Psychiatric hospitals", add the following to the list:
899 "both intermediate nursing care and skilled nursing care facilities, ambulatory surgical centers
900 with five or more operating rooms, and Type II assisted living facilities. Type II assisted living
901 facilities with five or fewer persons shall be classified as a Group R-4. Type II assisted living
902 facilities with at least six and not more than 16 residents shall be classified as a Group I-1
903 facility".

904 (l) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY
905 CLASSIFICATION, Institutional Group I-4, day care facilities, Classification as Group E, is
906 amended as follows:

- 907 (i) On line two delete the word "five" and replace it with the word "four"; and
- 908 (ii) On line three delete the words "2 1/2 years or less of age" and replace with the
909 words "under the age of two".

910 (m) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY
911 CLASSIFICATION, Institutional Group I-4, day care facilities, Five or fewer occupants
912 receiving care in a dwelling unit, is amended as follows: On lines one and three the word "five"
913 is deleted and replaced with the word "four".

914 (n) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY
915 CLASSIFICATION, Residential Group R-3, the words "and single family dwellings complying
916 with the IRC" are added after the word "Residential Group R-3 occupancies".

917 (o) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY
918 CLASSIFICATION, Residential Group R-3, Care facilities within a dwelling, is amended as
919 follows: On line three after the word "dwelling" insert "other than child care".

920 (p) IFC, Chapter 2, Section 202, General Definitions, OCCUPANCY
921 CLASSIFICATION, Residential Group R-3, a new section is added as follows: "Child Care.
922 Areas used for child care purposes may be located in a residential dwelling unit when all of the
923 following conditions are met:

- 924 1. Compliance with Utah Administrative Code, R710-8, Day Care Rules, as enacted
925 under the authority of the Utah Fire Prevention Board;

926 2. Use is approved by the Department of Health under the authority of Utah Code, Title
927 26, Chapter 39, Utah Child Care Licensing Act, and in any of the following categories:

928 1.1. Utah Administrative Code, R430-50, Residential Certificate Child Care; or

929 1.2. Utah Administrative Code, R430-90, Licensed Family Child Care; and

930 1.3 Compliance with all zoning regulations of the local regulator."

931 (q) IFC, Chapter 2, Section 202, General Definitions, RECORD DRAWINGS, is
932 amended as follows: Delete the words "a fire alarm system" and replace them with "any fire
933 protection system".

934 (r) IFC, Chapter 2, Section 202, General Definitions, the following definition is added
935 for Residential Treatment/Support Assisted Living Facility. "RESIDENTIAL
936 TREATMENT/SUPPORT ASSISTED LIVING FACILITY. A residential facility that provides
937 a group living environment for four or more residents licensed by the Department of Human
938 Services, and provides a protected living arrangement for ambulatory, non-restrained persons
939 who are capable of achieving mobility sufficient to exit the facility without the physical
940 assistance of another person."

941 (s) IFC, Chapter 2, Section 202, General Definitions, the following definition is added
942 for Type I Assisted Living Facility. "TYPE I ASSISTED LIVING FACILITY. A residential
943 facility licensed by the Department of Health that provides a protected living arrangement,
944 assistance with activities of daily living and social care to two or more ambulatory,
945 non-restrained persons who are capable of mobility sufficient to exit the facility without the
946 assistance of another person. Subcategories are:

947 Limited Capacity: two to five residents;

948 Small: six to sixteen residents; and

949 Large: over sixteen residents."

950 (t) IFC, Chapter 2, Section 202, General Definitions, the following definition is added
951 for Type II Assisted Living Facility. "TYPE II ASSISTED LIVING FACILITY. A residential
952 facility licensed by the Department of Health that provides an array of coordinated supportive
953 personal and health care services to two or more residents who are:

954 A. Physically disabled but able to direct his or her own care; or

955 B. Cognitively impaired or physically disabled but able to evacuate from the facility, or
956 to a zone or area of safety, with the physical assistance of one person. Subcategories are:

957 Limited Capacity: two to five residents;
958 Small: six to sixteen residents; and
959 Large: over sixteen residents."

960 Section 8. Section **15A-5-302** is amended to read:

961 **15A-5-302. Amendments and additions to NFPA related to National Fire Alarm**
962 **and Signaling Code.**

963 For NFPA 72, National Fire Alarm and Signaling Code, 2016 edition:

964 (1) NFPA 72, Chapter 2, Section 2.2, NFPA Publications, is amended to add the
965 following NFPA standard: "NFPA 20, Standard for the Installation of Stationary Pumps for
966 Fire Protection, 2016 edition."

967 (2) NFPA 72, Chapter 10, Section 10.5.1, System Designer, Subsection 10.5.1.3(2), is
968 deleted and rewritten as follows: [~~"National Institute of Certification in Engineering~~
969 ~~Technologies (NICET) fire alarm level II certified personnel."~~] "Certification by the National
970 Institute for Certification in Engineering Technologies at level III or IV in Fire Alarm
971 Systems."

972 (3) NFPA 72, Chapter 10, Section 10.5.2, System Installer, Subsection 10.5.2.3(2), is
973 deleted and rewritten as follows: [~~"National Institute of Certification in Engineering~~
974 ~~Technologies (NICET) fire alarm level II certified personnel."~~] "Certification by the National
975 Institute for Certification in Engineering Technologies at level III or IV in Fire Alarm
976 Systems."

977 (4) NFPA 72, Chapter 10, Section 10.5.3, Inspection, Testing, and Maintenance
978 Personnel, Subsection 10.5.3.1, is deleted and rewritten as follows:

979 "Service personnel shall be qualified and experienced in the inspection, testing, and
980 maintenance of fire alarm systems. Qualified personnel shall meet the certification
981 requirements stated in rule made by the State Fire Prevention Board in accordance with Title
982 63G, Chapter 3, Utah Administrative Rulemaking Act."

983 (5) NFPA 72, Chapter 10, Section 10.12, Fire Alarm Signal Deactivation, Subsection
984 10.13.2, is amended to add the following sentence: "When approved by the AHJ, the audible
985 notification appliances may be deactivated during the investigation mode to prevent
986 unauthorized reentry into the building."

987 (6) In NFPA 72, Chapter 23, Section 23.8.5.9, Signal Initiation -- Fire Pump,

988 Subsection 23.8.5.9.3 is added as follows: "Automatic fire pumps shall be supervised in
989 accordance with NFPA 20, Standard for the Installation of Stationary Pumps for Fire
990 Protection, and the AHJ."

991 (7) NFPA 72, Chapter 26, Section 26.3.4, Indication of Central Station Service,
992 Subsection 26.3.4.7 is amended as follows: On line two, after the word "notified", insert the
993 words "without delay" and delete the words, "within 30 calendar days".

994 Section 9. Section **58-22-305** is amended to read:

995 **58-22-305. Exemption from licensure.**

996 (1) In addition to the exemptions from licensure in Section **58-1-307**, the following
997 may engage in the following acts or practices without being licensed under this chapter:

998 (a) a person offering to render professional engineering, professional structural
999 engineering, or professional land surveying services in this state when not licensed under this
1000 chapter if the person:

1001 (i) holds a current and valid professional engineer, professional structural engineer, or
1002 professional land surveyor license issued by a licensing authority recognized by rule by the
1003 division in collaboration with the board;

1004 (ii) discloses in writing to the potential client the fact that the professional engineer,
1005 professional structural engineer, or professional land surveyor:

1006 (A) is not licensed in the state;

1007 (B) may not provide professional engineering, professional structural engineering, or
1008 professional land surveying services in the state until licensed in the state; and

1009 (C) that such condition may cause a delay in the ability of the professional engineer,
1010 professional structural engineer, or professional land surveyor to provide licensed services in
1011 the state;

1012 (iii) notifies the division in writing of the person's intent to offer to render professional
1013 engineering, professional structural engineering, or professional land surveying services in the
1014 state; and

1015 (iv) does not provide professional engineering, professional structural engineering, or
1016 professional land surveying services, or engage in the practice of professional engineering,
1017 professional structural engineering, or professional land surveying in this state until licensed to
1018 do so;

1019 (b) a person preparing a plan and specification for a one or two-family residence not
1020 exceeding two stories in height;

1021 (c) a person licensed to practice architecture under Title 58, Chapter 3a, Architects
1022 Licensing Act, performing architecture acts or incidental engineering or structural engineering
1023 practices that do not exceed the scope of the education and training of the person performing
1024 engineering or structural engineering;

1025 (d) unlicensed employees, subordinates, associates, or drafters of a person licensed
1026 under this chapter while preparing plans, maps, sketches, drawings, documents, specifications,
1027 plats, and reports under the supervision of a professional engineer, professional structural
1028 engineer, or professional land surveyor;

1029 (e) a person preparing a plan or specification for, or supervising the alteration of or
1030 repair to, an existing building affecting an area not exceeding 3,000 square feet when structural
1031 elements of a building are not changed, such as foundations, beams, columns, and structural
1032 slabs, joists, bearing walls, and trusses;

1033 (f) an employee of a communications, utility, railroad, mining, petroleum, or
1034 manufacturing company, or an affiliate of such a company, if the professional engineering or
1035 professional structural engineering work is performed solely in connection with the products or
1036 systems of the company and is not offered directly to the public;

1037 (g) an organization engaged in the practice of professional engineering, structural
1038 engineering, or professional land surveying, provided that:

1039 (i) the organization employs a principal; and

1040 (ii) all individuals employed by the organization, who are engaged in the practice of
1041 professional engineering, structural engineering, or land surveying, are licensed or exempt from
1042 licensure under this chapter; ~~and~~

1043 (h) a person licensed as a professional engineer, a professional structural engineer, or a
1044 professional land surveyor in a state other than Utah serving as an expert witness, provided the
1045 expert testimony meets one of the following:

1046 (i) oral testimony as an expert witness in an administrative, civil, or criminal
1047 proceeding; or

1048 (ii) written documentation included as part of the testimony in a proceeding, including
1049 designs, studies, plans, specifications, or similar documentation, provided that the purpose of

1050 the written documentation is not to establish specifications, plans, designs, processes, or
1051 standards to be used in the future in an industrial process, system, construction, design, or
1052 repair[-];

1053 (i) a person certified by the National Institute for Certification in Engineering
1054 Technologies at level III or IV in Water-Based System Layout, who submits a fire sprinkler
1055 system to the authority having jurisdiction, the fire code official, or the building official for
1056 approval;

1057 (j) a person certified by the National Institute for Certification in Engineering
1058 Technologies at level III or IV in Fire Alarm Systems, who submits a fire alarm system layout
1059 to the authority having jurisdiction, the fire code official, or the building official for approval;

1060 (k) a fire code or building official reviewing construction documents for code
1061 compliance; and

1062 (l) a fire code or building official conducting an inspection for code compliance.

1063 (2) Nothing in this section shall be construed to restrict a person from preparing plans
1064 for a client under the [~~exemption~~] exemptions provided in [~~Subsection (1)(b)~~] Subsections
1065 (1)(b), (1)(i), or (1)(j), or taking those plans to a professional engineer for the engineer's
1066 review, approval, and subsequent fixing of the engineer's seal to that set of plans.

1067 Section 10. **Effective date.**

1068 This bill takes effect on July 1, 2022.